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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
594728812US

Application Number	Filed
10/045,297-Conf. #1257	November 7, 2001

First Named Inventor
Lee et al.

Art Unit	Examiner
2188	P. M. Vital

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
     Note: No more than five (5) pages may be provided.

I am the

☐ applicant /inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b)
is enclosed. (Form PTO/SB/96)

☒ attorney or agent of record.
Registration number _____ 33,273 _____

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34. _____

_____
Signature

Maurice J. Pirio
_____
Typed or printed name

(206) 359-8000
_____
Telephone number

5/10/06
_____
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

☒ *Total of _____1_____ forms are submitted.

MAY 1 0 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:	LEE *ET AL.*	EXAMINER: P.M. VITAL
APPLICATION NO.:	10/045,297	ART UNIT: 2188
FILED:	NOVEMBER 7, 2001	CONF. NO: 1257
FOR:	COMMUNICATIONS ARCHITECTURE FOR MEMORY-BASED DEVICES	

ARGUMENTS FOR PRE-APPEAL BRIEF REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant submits along with the Notice of Appeal the following arguments for consideration by the conference panel. Applicant respectfully requests consideration of this application in view of these arguments.

REMARKS

Claims 1-36 are pending. The Examiner has allowed claims 4 and 23. The remaining claims are rejected under 35 U.S.C. § 103(a) based on the combinations of references as outlined in the following:

Claims 1, 2, 5-7, 8, 10-21, and 24-36	Sonnier, Davidson, Knecht
Claims 3 and 22	Sonnier, Davidson, Knecht, Jeong
Claim 9	Sonnier, Davidson, Knecht, Lee

To simplify issues on appeal, applicant is only appealing the rejection of claims 1-3 and 5-18.

Applicant's invention is a memory device that includes a memory and multiple ports for accessing the memory. Each port includes a bit-serial communications link through which each bit of a symbol can be transferred in a serial fashion. Additionally, each port uses a plesiosynchronous clocking technique to receive symbols. Thus, applicant's invention is a memory device that includes multiple ports that communicate bit serially using a plesiosynchronous clocking technique.

In addition, the claims recite that data is transmitted using in-band symbols and control information is transmitted using out-of-band symbols. Applicant's specification defines in-band symbols as symbols having certain desirable characteristics and out-of band symbol as not having those desirable characteristics. This selection of in-band versus out-of-band symbols results in serial communications that have the desirable characteristics in general because typical communications include many more symbols of data than symbols of control information.

The Examiner recognizes that the primary reference, Sonnier, neither teaches nor suggests the use of bit-serial communications or plesiosynchronous clocking technique. To cure this deficiency, the Examiner relies on Knecht as disclosing bit-serial communications and on Davidsson as disclosing a plesiosynchronous clocking technique. There is no question that memory devices, multiple ports, bit-serial

communications, and plesiosynchronous clocking techniques are each individually in the prior art. The Examiner has not, however, established that the prior art teaches, suggests, or provides a motivation for combining the three references as the Examiner suggests.

Applicant is puzzled by the Examiner's suggested motivation for combining Davidsson's plesiosynchronous clocking technique with Sonnier. According to the Examiner, the motivation for the combination is that "it was well known to provide the ability to switch separate, incoming traffic streams carrying data at different rates." (Office Action, Feb. 21, 2006, p. 4.) Applicant's invention, however, has nothing to do with "the ability to switch separate, incoming traffic streams." Applicant's invention is a memory device. Davidsson, in contrast, describes a switching system and does not even mention the work "memory" or "storage." Clearly, a motivation that is unrelated to the claimed invention cannot be considered sufficient motivation. In addition, Davidsson provides no suggestion to combine its plesiosynchronous clocking technique with a memory device.

The Examiner's suggested motivation for combining Knecht with Sonnier and Davidsson is equally puzzling. According to Examiner, it would have been obvious to add serial communications to Sonnier and Davidsson "to provide a high speed serial data transfer requiring minimal overhead." (Office Action, Feb. 21, 2006, pp. 4-5.) First, this is not a suggestion to replace parallel communications with serial communications. Rather, it is simply suggesting a technique that can improve serial communications. Second, if the Examiner is suggesting that it would be obvious to replace parallel communications with serial communications because it provides a higher speed and requires minimal overhead, the Examiner is wrong. It can clearly be much faster to send bits of a byte or word in parallel, rather than in serial. Moreover, the Examiner has pointed to nothing that suggests serial communications would require less overhead than parallel communications.

Since there is no support in Davidsson or Knecht for the combination that the Examiner suggests, the Examiner is apparently (and impermissibly) using applicant's

own disclosure as a template to piece together the prior art to arrive at applicant's invention.

As described above, the claims recite using "in-band symbols to transmit data and out-of-band symbols to transmit control information." Applicant's specification defines an in-band symbol as having "certain desirable characteristics" and an out-of-band symbol as "not hav[ing] the same desirable characteristic as an in-band symbol." (Specification, ¶ 86.) For example, one such desirable characteristic is the optimization of bit transitions. With such an example, in-band symbols would have their bit transition optimized and out-of-band symbols would not.
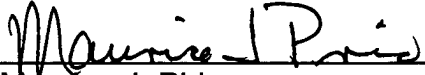
Applicant can find nothing in Sonnier to suggest the data is sent using symbols with "desirable characteristics" while control information is sent using symbols "without those desirable characteristics." The Examiner relies on Sonnier at 27:30-38 and 28:31-35 as disclosing sending data via in-band symbols and control information via out-of-band symbols. The relied-upon portions of Sonnier describe that a byte of data is sent in 9 bits with its most significant bit set to 1 and control information is sent in 9 bits with its most significant bit set to 0. There is nothing in these portions to suggest in-band or out-of-band symbols and certainly nothing to suggest that data should be sent with symbols having certain desirable characteristics and control information should be sent with symbols without those desirable characteristics.

Applicant respectfully requests that the rejection of the appealed claims be withdrawn and that this application be allowed. The Examiner's purported motivations to combine Sonnier, Davidsson, and Knecht are simply a patching together of the prior art using applicant's specification as a template. In addition, the Examiner's reliance of Sonnier as disclosing sending data via in-band symbols and control information via out-of-band symbols is misplaced. Sonnier does not describe any distinction between symbols used to send data and symbols used to send control information, other than a high-order bit as a flag to distinguish data from control information. Sonnier neither teaches nor suggests using symbols with any "desirable characteristic" for the sending of data and using symbols without the "desirable characteristic" when sending control information.

Applicant respectfully requests reconsideration of this application and its early allowance. If a telephone conference would expedite consideration of the request for review, the undersigned encourages the panel to call the undersigned at (206) 359-8548.

Respectfully submitted,

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Date: 5-10-06

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